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(11) Publication number:

**0 343 925 A3**

(12)

## EUROPEAN PATENT APPLICATION

(21) Application number: **89305203.5**

(51) Int. Cl.<sup>5</sup>: **C09B 67/22, C09B 7/02,  
D06P 3/60**

(22) Date of filing: **23.05.89**

(30) Priority: **25.05.88 JP 127896/88**

(43) Date of publication of application:  
**29.11.89 Bulletin 89/48**

(84) Designated Contracting States:  
**AT DE ES FR GB IT**

(68) Date of deferred publication of the search report:  
**15.05.91 Bulletin 91/20**

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(54) **Dye compositions for dyeing denim cotton yarns and dyeing process and dyed articles using same.**

(57) Dyed denim cotton yarns capable of meeting the market demand for color jeans can be provided by immersing denim cotton yarns in a dye bath containing a dye or dye composition comprising a specific indirubin derivative(s), a specific quinophthalone derivative(s) and/or an indigo dye, squeezing and air-oxidizing the dyed yarns, and repeating a series of these steps.

**EP 0 343 925 A3**



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## EUROPEAN SEARCH REPORT

Application Number

**EP 89 30 5203**

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                               |                                             |                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------------|
| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim                           | CLASSIFICATION OF THE APPLICATION (Int. Cl.5) |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | EP-A-0 276 171 (MITSUI TOATSU CHEMICALS)<br>* Claims; examples *<br>-----     | 1-10                                        | C 09<br>B 67/22<br>C 09 B 7/02<br>D 06 P 3/60 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                               |                                             | TECHNICAL FIELDS SEARCHED (Int. Cl.5)         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                               |                                             | C 09 B<br>D 06<br>P                           |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                               |                                             |                                               |
| Place of search<br>The Hague                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                               | Date of completion of search<br>01 March 91 | Examiner<br>GINOUX C.R.M.                     |
| <b>CATEGORY OF CITED DOCUMENTS</b><br>X: particularly relevant if taken alone<br>Y: particularly relevant if combined with another document of the same category<br>A: technological background<br>O: non-written disclosure<br>P: intermediate document<br>T: theory or principle underlying the invention<br>E: earlier patent document, but published on, or after the filing date<br>D: document cited in the application<br>L: document cited for other reasons<br>-----<br>&: member of the same patent family, corresponding document |                                                                               |                                             |                                               |